



Game on for Glasgow:

A Snapshot of International Action

Climate Council

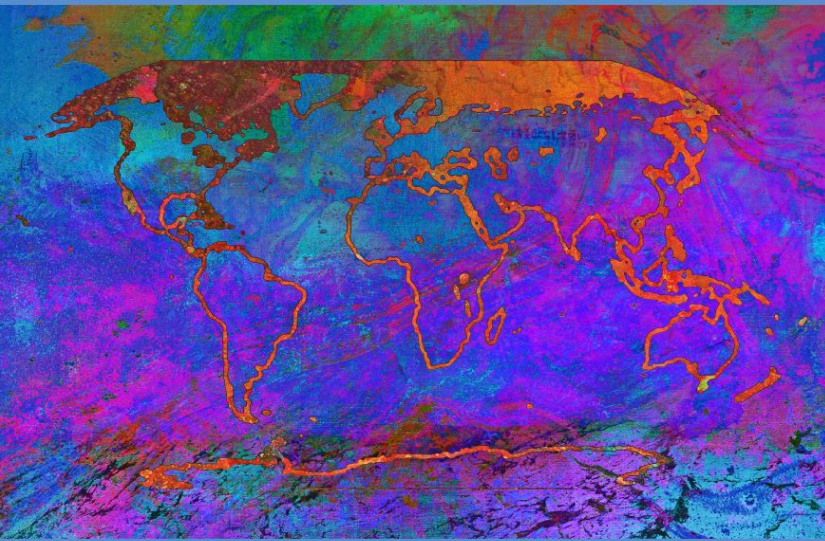
Science Update



Climate Change 2021

The Physical Science Basis

Summary for Policymakers

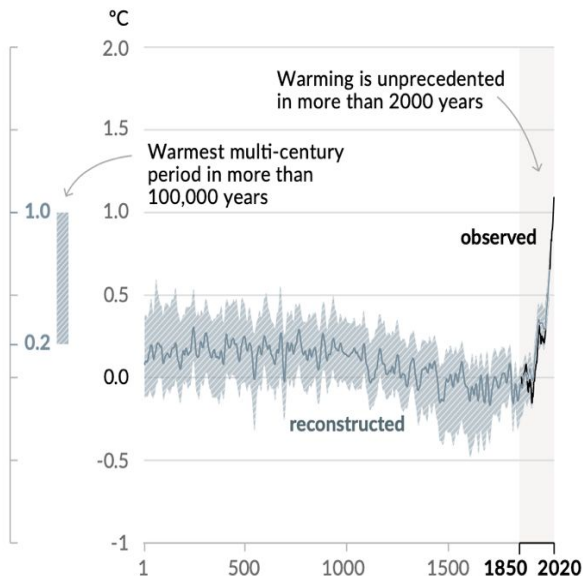


- **Written by a team of 234 scientists from 66 countries**
- **Evaluated more than 14,000 individual climate change research papers**
- **Two rounds of expert and government review**
- **Responded to 78,007 technical queries throughout the review process**
- **Final report contains well in excess of one million words**

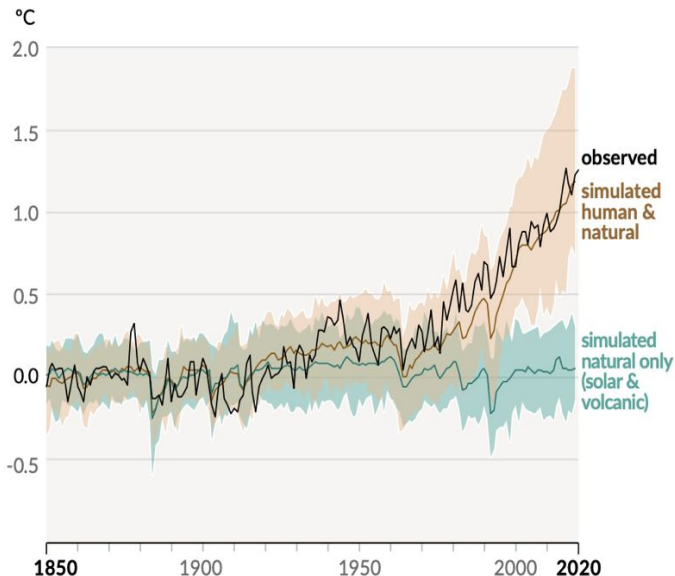
Changes in Global Surface Temperature

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average) as **reconstructed** (1-2000) and **observed** (1850-2020)



b) Change in global surface temperature (annual average) as **observed** and simulated using **human & natural** and **only natural** factors (both 1850-2020)



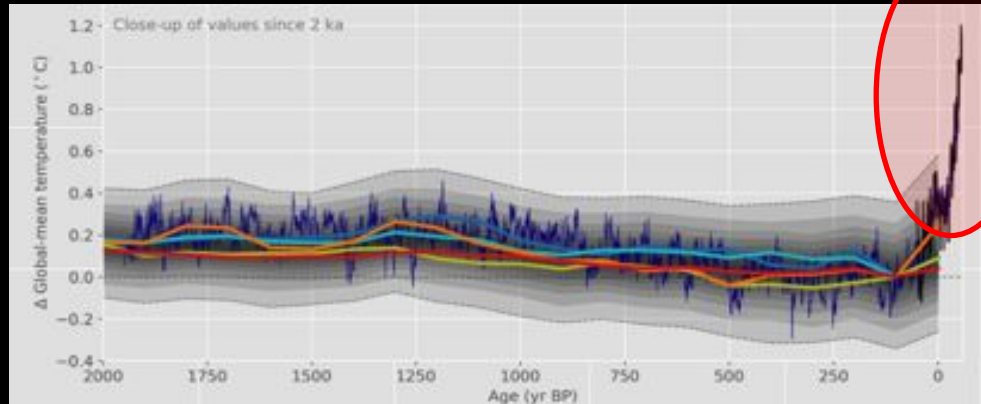
Key Findings

1. The scale and pace at which humans are changing the climate system has almost no precedent – melting ice sheets, acidifying oceans, shifting rainfall zones, rising sea levels....
2. Climate change and its impacts are accelerating: heatwaves, marine heatwaves, fire weather, storms & heavy rainfall, droughts....
3. Worsening impacts are ‘baked in’ to the climate system for the next two decades at least.
4. Catastrophic events - collapse of major ice sheets, rapid temperature increases – cannot be ruled out and should be part of risk assessment.

Climate Change: An Earth System Perspective

Temperature rise is unprecedented over 2,000 years

Human influence



The Late Holocene Baseline

Rates of Change

Rate of atmospheric CO₂ increase over the past two decades is about 100 times the maximum rate during the last deglaciation.

Since 1970 the global average temperature has risen at a rate about 200 times the background rate over the past 7,000 years of the Holocene, and in the opposite direction.

The current rates of CO₂ and temperature change are almost unprecedented in the entire 4.5 billion-year geological past.

Projected temperature rise

	Near term, 2021–2040		Mid-term, 2041–2060		Long term, 2081–2100	
Scenario	Best estimate (°C)	Very likely range (°C)	Best estimate (°C)	Very likely range (°C)	Best estimate (°C)	Very likely range (°C)
SSP1-1.9	1.5	1.2 to 1.7	1.6	1.2 to 2.0	1.4	1.0 to 1.8
SSP1-2.6	1.5	1.2 to 1.8	1.7	1.3 to 2.2	1.8	1.3 to 2.4
SSP2-4.5	1.5	1.2 to 1.8	2.0	1.6 to 2.5	2.7	2.1 to 3.5
SSP3-7.0	1.5	1.2 to 1.8	2.1	1.7 to 2.6	3.6	2.8 to 4.6
SSP5-8.5	1.6	1.3 to 1.9	2.4	1.9 to 3.0	4.4	3.3 to 5.7

National pledges

Current policies

ES feedbacks kick in?

Low Emissions



High Emissions

Australian Trends

- Heatwaves will become more frequent and more intense.
- Further increase in marine heatwaves and ocean acidity (cf. GBR)
- The intensity, frequency and duration of fire weather is projected to increase throughout Australia.
- An increase in heavy rainfall in the northern, central and eastern parts of Australia.
- Further increases in droughts in the southern and eastern parts of Australia, and particularly in the southwest.
- Sea levels are rising faster than global average around Australia, leading to increasing coastal flooding and shoreline retreat.
- Sand storms and dust storms are projected to increase throughout Australia.

What is required to meet this challenge?

GLOBAL:

- No new coal, oil or gas developments
- 50% emission reduction by 2030 (on 2005 baseline)
- Net-zero emissions by 2040

AUSTRALIA:

No new coal, oil or gas developments

75% emission reduction by 2030 (on 2005 baseline)

Net-zero emissions by 2035

Overall Summary of the AR6

- The most important climate science update for almost a decade shows there is a narrow path to avoiding climate catastrophe, but only through immediate, deep and sustained emissions reductions. **This may be our final warning.**
- Climate change is already wreaking havoc around the world, with worse to come. Our decisions this decade will be the difference between a liveable future for today's young people, and a future that is incompatible with well-functioning human societies.
- Every choice and every fraction of a degree of avoided warming matters. The right choices will be measured in lives, livelihoods, species and ecosystems saved. **Strong action NOW is essential for the future of our children and grandchildren.**



FROM PARIS TO GLASGOW: A WORLD ON THE MOVE

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OUR NEW REPORT

From Paris to Glasgow: A world on the move



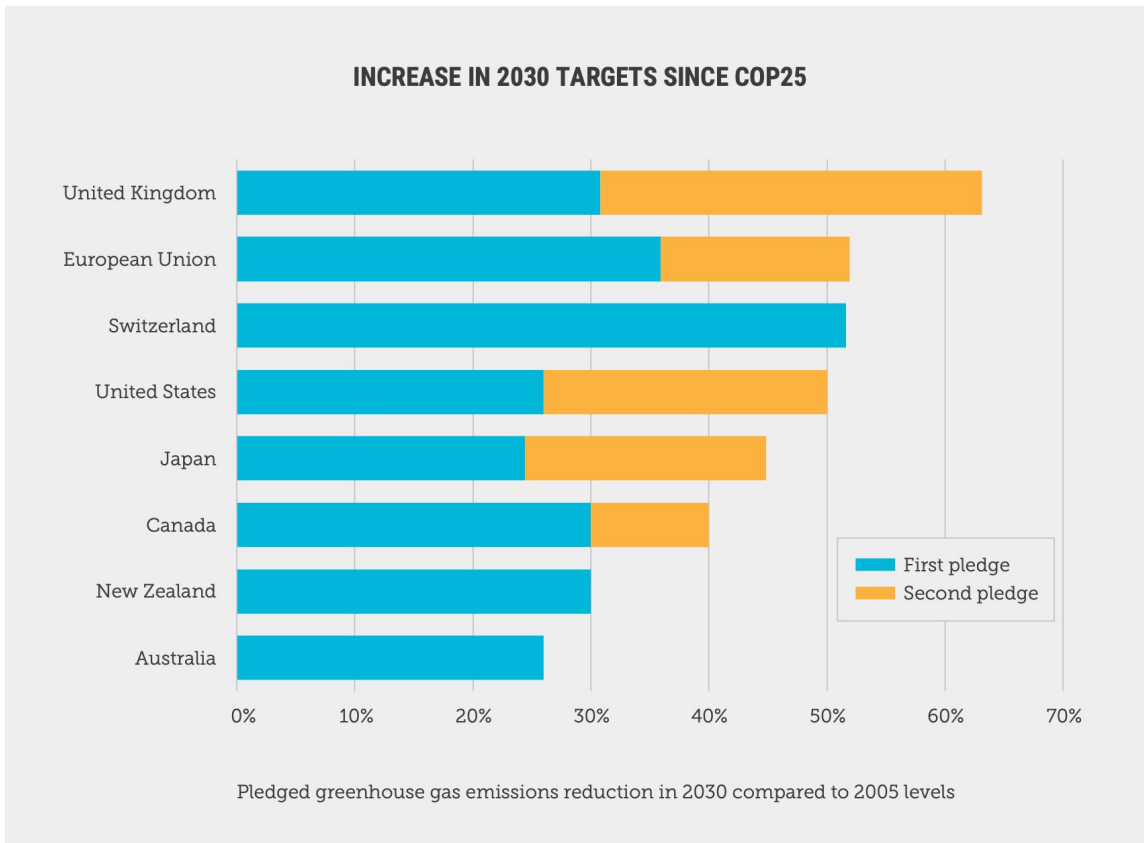
KEY FINDINGS

There has been a surge in international action leading up to COP26 and a rapid shift in the global politics of climate change.

Almost all developed countries have substantially strengthened their 2030 targets.

Climate change is a strategic priority for the world's major powers.

Australia is being left behind.



KEY FINDINGS

Our new ranking reveals that Australia is the worst performing developed country when it comes to cutting greenhouse gas emissions and moving beyond fossil fuels.

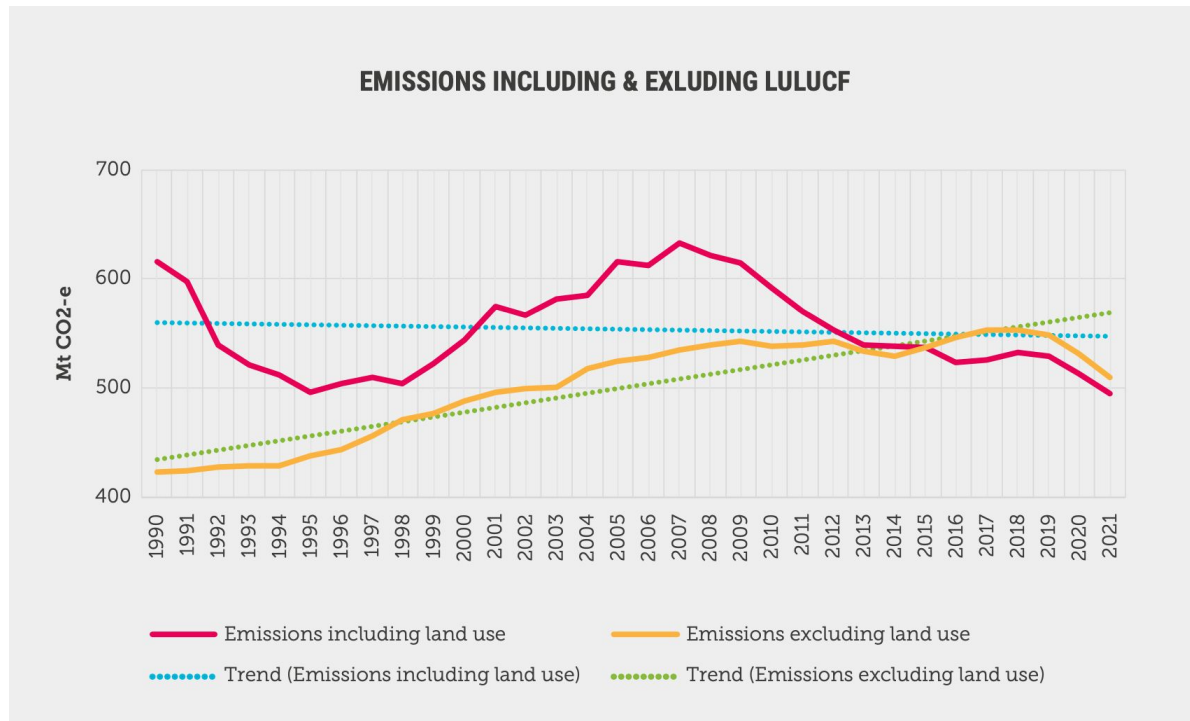
Our ranking looks at both past performance commitments moving forwards.

- | | |
|-------------------|----------------------|
| 1. United Kingdom | 16. Austria |
| 2. Switzerland | 16. Belgium |
| 3. Sweden | 18. Netherlands |
| 4. Latvia | 19. Czech Republic |
| 5. Denmark | 19. Greece |
| 6. France | 19. Luxembourg |
| 7. Lithuania | 19. Slovenia |
| 8. Italy | 23. Ireland |
| 9. Hungary | 23. United States |
| 10. Japan | 25. Estonia |
| 11. Germany | 26. Poland |
| 12. Portugal | 27. Canada |
| 13. Norway | 27. Turkey |
| 14. Spain | 29. Iceland |
| 15. Finland | 30. New Zealand |
| | 31. Australia |

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KEY FINDINGS

Australia is under unprecedented international pressure to strengthen its climate commitments.

For the first time, Australia's traditional allies and closest security partners, as well as our neighbours, are all calling for Australia to lift its 2030 emissions reduction target.

“By the time leaders come to Glasgow at COP26, it should be with immediate and transformative actions. Come with new commitments for serious cuts in emissions by 2030 – 50% or more. Come with commitments to become net-zero before 2050. Do not come with excuses. That time is past.”

Fiji Prime Minister Frank Bainimarama in the foreword to our report

KEY FINDINGS

By strengthening our climate commitments and actions this decade, Australia can have an outsized and positive influence on what happens next around the world.

- Australia should reduce its emissions by 75% (below 2005 levels) by 2030 and achieve net zero by 2035. As a first step, Australia should match the updated commitments of our allies and pledge before Glasgow to at least halve national emissions this decade.
- To ensure this occurs, Australia needs a national plan to rapidly decarbonise our electricity and transport sectors, protect and restore our ecosystems, and support communities that are transitioning to new, clean industries.
- Australia should follow the US in doubling its current contribution to supporting climate action in developing countries, and pledge to provide at least AU\$3 billion over 2021-2025 towards the shared international goal of providing US\$100 billion a year.

KEY FINDINGS

By strengthening our climate commitments and actions this decade, Australia can have an outsized and positive influence on what happens next around the world.

- A commitment and plan for rapidly cutting our emissions this decade will unlock investment and create new jobs; particularly in regional areas. Australia has the potential to grow new clean export industries that far exceed the value of our current fossil fuel exports.
- New jobs in renewable energy, energy efficiency, ecosystem restoration, advanced manufacturing, etc.
- New export revenue from green steel, critical energy minerals, and clean energy
- A safer, healthy environment for Australians and communities everywhere



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY

COP26: What it is and why it matters

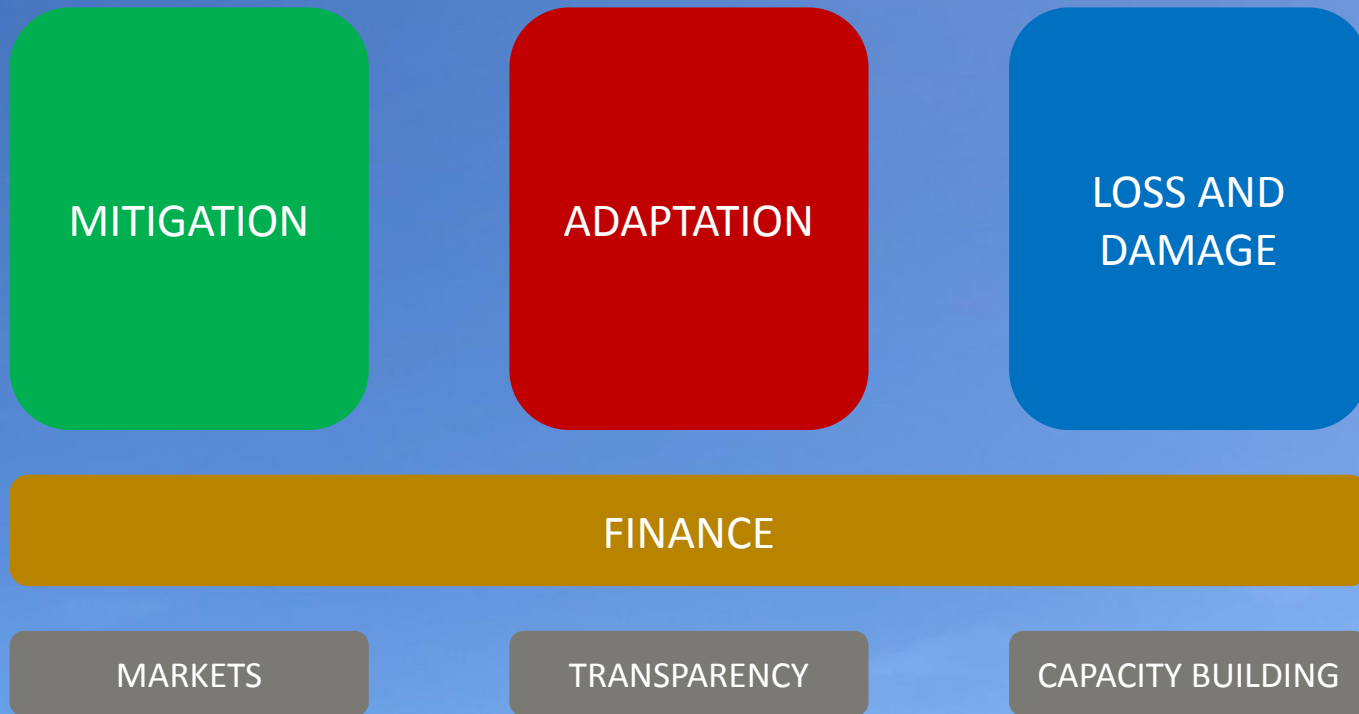




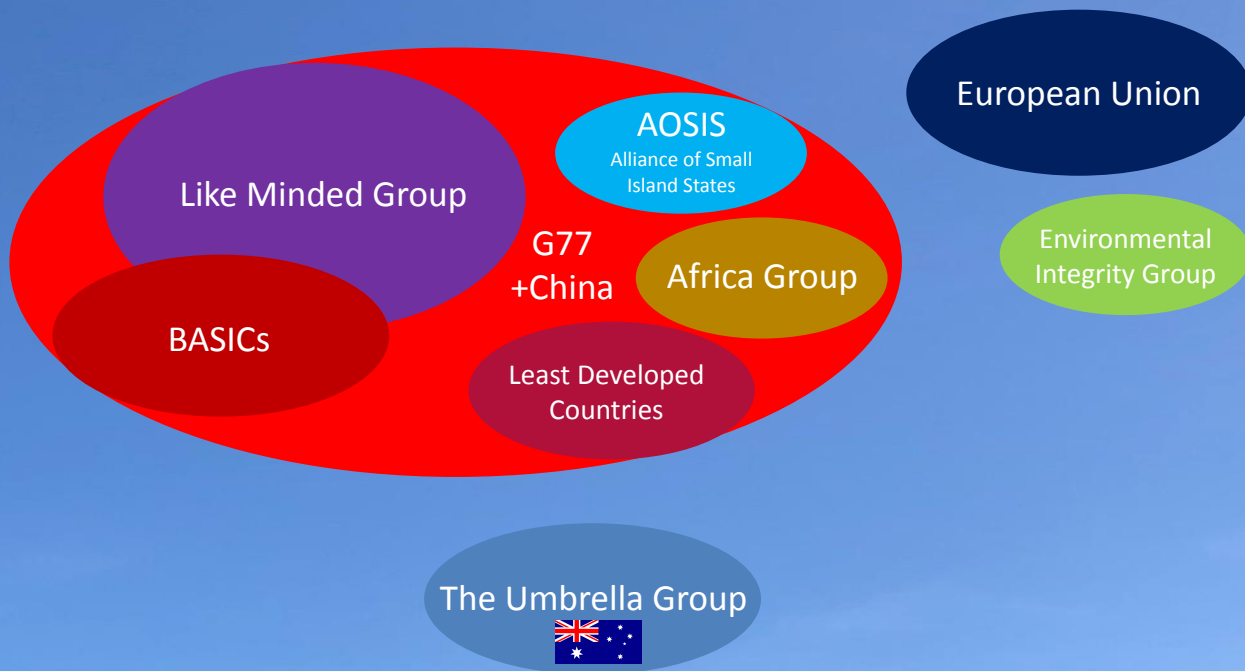
Mechanics of COP: How the process works



Key elements of the negotiations



Negotiating blocs



Why COP26 matters



“Paris promised, Glasgow must deliver”
Aloko Sharma, President of COP26

The Paris Agreement gave us the framework for action, but the sum of individual countries' commitments has remained way short of the what the Agreement demands.

COP26 is about closing that gap.

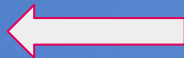
In particular it is about bringing commitments for the coming decade into line with what the science demands.

Why COP26 matters

HEADLINE GOAL

Mitigation

Secure global net zero and keep 1.5C within reach



All about 2030 targets and action this decade

Adaptation

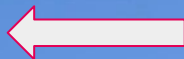
Enabling vulnerable countries and communities to adapt to impacts



Australia will be announcing its (slightly revamped and woefully inadequate) adaptation plan. While adaptation is an important pillar of climate action, it's vital that any new commitment on this front doesn't take any pressure off Australia on mitigation.

Mobilising finance

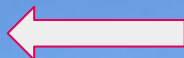
Make good on the \$100bn commitment



Australia's contribution towards the \$100bn remains well short of a fair share. Like all developed countries, Australia will be under pressure to put some more money on the table.

Collaboration

Working together to accelerate action



The UK COP Presidency is very keen for this COP to be seen as the end of coal. Expect lots of new alliances/deals such as Beyond Oil and Gas and something on ending coal financing. Many of these will further highlight how isolated Australia is.

Daily updates – join the conversation!

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- Instagram: [@theclimatecouncil](https://instagram.com/theclimatecouncil)
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- Email: climatecouncil.org.au/join